



# KY Hepatitis Connections

May is Hepatitis Awareness Month! See hepatitis awareness activity ideas for your local community, and send us pictures of you activities so we can highlight in our June newsletter. In addition, inside our May 2015 Edition of the KY Hepatitis Connections you will find information: about viral hepatitis, opportunities for viral hepatitis continuing professional education, and information about educational materials available. See all the exciting things happening here in Kentucky!

If you would like to share your favorite Kentucky landscape pictures for readers of our newsletter, send to me. As always, feel free to forward, copy and/ or distribute this newsletter to other professionals in your network. Your knowledge and input are greatly valued, as we are committed to keeping you up to date on shared progress in the medical community on viral hepatitis and its impact on our families throughout the Commonwealth. We hope you enjoy the May newsletter.

Kathy Sanders, RN MSN

# **This is an official CDC HEALTH ADVISORY**

## **Outbreak of Recent HIV and HCV Infections among Persons Who Inject Drugs**

### **Summary**

The Indiana State Department of Health (ISDH) and the Centers for Disease Control and Prevention (CDC) are investigating a large outbreak of recent human immunodeficiency virus (HIV) infections among persons who inject drugs (PWID). Many of the HIV-infected individuals in this outbreak are co-infected with hepatitis C virus (HCV). The purpose of this HAN Advisory is to alert public health departments and healthcare providers of the possibility of HIV outbreaks among PWID and to provide guidance to assist in the identification and prevention of such outbreaks.

### **Background**

From November 2014 to January 2015, ISDH identified 11 new HIV infections in a rural southeastern county where fewer than 5 infections have been identified annually in the past. As of April 21, 2015, an on-going investigation by ISDH with assistance from CDC has identified 135 persons with newly diagnosed HIV infections in a community of 4,200 people; 84% were also HCV infected. Among 112 persons interviewed thus far, 108 (96%) injected drugs; all reported dissolving and injecting tablets of the prescription-type opioid oxycodone (OPANA® ER) using shared drug preparation and injection equipment.<sup>1</sup>

This HIV outbreak was first recognized by a local disease intervention specialist. In late 2014, interviews conducted with three persons newly diagnosed with HIV infections in three separate venues (i.e., an outpatient clinic, a drug rehabilitation program, during a hospitalization) indicated that two of these persons had recently injected drugs and had numerous syringe-sharing and sexual partners. Contact tracing identified eight additional HIV infections leading to the current outbreak investigation, which has demonstrated that HIV had spread recently and rapidly through the local network of PWID. Without an attentive health department, active case finding, and additional testing provided as part of this investigation, this cluster may not have been identified.

Urgent action is needed to prevent further HIV and HCV transmission in this area and to investigate and control any similar outbreaks in other communities.

Injection drug use accounts for an estimated 8%<sup>2</sup> of the approximate 50,000 annual new HIV infections in the United States. & HCV infection is the most common blood-borne infection in the United States and percutaneous exposure via drug-injecting equipment contaminated with HCV-infected blood is the most frequent mode of transmission. Nationally, acute HCV infections have increased 150% from 2010 to 2013,<sup>4</sup> and over 70% of long-term PWID may be infected with HCV. Abuse of prescription-type opioids is increasing nationally<sup>6</sup> and opioid-analgesic poisoning deaths have nearly quadrupled from 1999 through 2011.<sup>7</sup> Rates of acute HCV infection are increasing, especially among young nonurban PWID, often in association with abuse of injected prescription-type opioids. These increases have been most substantial in nonurban counties east of the Mississippi River.<sup>8</sup>

Read More: <http://emergency.cdc.gov/han/han00377.asp>



The month of May is designated as Hepatitis Awareness Month in the United States, and May 19th is Hepatitis Testing Day. During May, CDC and its public health partners work to shed light on this hidden epidemic by raising awareness of viral hepatitis and encouraging priority populations to get tested.

## Resources for Hepatitis Awareness Month and Hepatitis Testing Day

The month of May is designated as Hepatitis Awareness Month in the United States, and May 19th is Hepatitis Testing Day. During May, CDC and the KY Department of Public Health work to shed light on this hidden epidemic by raising awareness thru local health departments and private organizations of viral hepatitis and encouraging priority populations to get tested.

## Digital Tools – Buttons, Banners, Quiz Widget

To find digital tools including a quiz widget and buttons, badges, and banners in different shapes and sizes that are ready to download and use on websites and in emails, Visit <http://www.cdc.gov/hepatitis/HepPromoBtnsBadgs.htm>

## Hepatitis Testing Day Event Page

Check out the Hepatitis Testing Day Event Page at <http://npin.cdc.gov/htd/HTD.aspx>

If your group is hosting an event, please register your Hepatitis Testing Day event at <http://npin.cdc.gov/htd/SubmitEvent.aspx>.

## Hepatitis Testing Event Button and Badges

Check out the Hepatitis Testing Event Buttons and badges at: <http://www.cdc.gov/hepatitis/HepPromoBtnsBadgs.htm#event>



## JOIN CDC's Be #HepAware Thunderclap on May 19<sup>th</sup>

In support of [Hepatitis Awareness Month](#) and national Hepatitis Testing Day on May 19<sup>th</sup>, the Division of Viral Hepatitis has launched a Thunderclap to help raise awareness about viral hepatitis and encourage people to learn their risk. Please join the effort and sign up for our [Be #HepAware Thunderclap](#) today!

### What is a Thunderclap?

Never heard of Thunderclap? It's a social media tool that allows supporters to sign up in advance to share a unified message at a specific time via their individual Facebook, Twitter, or Tumblr accounts. In essence, the collective action creates a wave of support – or “thunderclap” – across social media. Our Thunderclap will go live on May 19<sup>th</sup> at 12:00 p.m. EDT/9:00 a.m. PDT, and encourages individuals to learn their risk by taking our online Hepatitis Risk Assessment.

But we can't do this without you! We need 100 supporters to sign up in order for our Thunderclap to take effect. So, please join us in this effort and help spread the word to your members and followers.

### Joining the Be #HepAware Thunderclap is easy!

1. Visit the Be #HepAware Thunderclap page: <http://thndr.it/1z5X2cF>
2. Click “Support with Twitter,” “Support with Facebook,” and/or “Support with Tumblr”.
3. Share our Thunderclap page with others on social media, in newsletters, on your website, and through other forms of communication.
4. On Tuesday, May 19<sup>th</sup>, 2015, watch as everyone's messages is shared!

Together we can raise awareness about viral hepatitis and drive action on national Hepatitis Testing Day. Your post through Thunderclap could motivate someone to get tested for hepatitis, so please sign up and encourage others to do the same. We thank you for your support and continued efforts to increase education, awareness, and testing for viral hepatitis across the United States.

Any questions? Please email [ccarnes@cdc.gov](mailto:ccarnes@cdc.gov), visit the website at [www.cdc.gov/hepatitis](http://www.cdc.gov/hepatitis), or follow on Twitter [@cdchep](https://twitter.com/cdchep). For additional ideas to promote Hepatitis Awareness Month and Hepatitis Testing Day, visit <http://www.cdc.gov/hepatitis/HepPromoResources.htm>.

# HCV: IN THE NEWS:

## Why Congress should rethink syringe issue

If someone told you that your city had started a program providing clean needles to injecting drug users, would that make you want to start injecting drugs yourself? The answer, of course, would be no. Yet for decades, many have stood by the belief that such programs, known as syringe exchange or syringe services programs, promote and encourage drug use. Indeed, for Congress, it became the rationale behind a ban implemented in 1988 that prohibits the use of federal funds for these programs.

But an overwhelming body of scientific evidence continues to show that this is simply not true.

As a result of the recent spikes in HIV and hepatitis C infections among injecting drug users in rural Indiana and Kentucky, the controversial topic of syringe exchange programs has come to the fore again. And this time, scientific evidence and sound public health practices prevailed as both states authorized the implementation of syringe exchange programs to help curb the spread of these two blood-borne diseases that can be spread by contaminated syringes.

This is a welcome step -- an estimated 50,000 Americans are newly infected with HIV every year, and some 8% are among injection drug users. Meanwhile, between 2006 and 2012, at least 30 states experienced increases in hepatitis C infection rates, with more than half reporting at least a 200% increase in acute infections among young adults. Overall, the prevalence of acute hepatitis C among people under 30 rose from 36% to 49% in six years.

The new HIV and hepatitis C infections among injecting drug users in primarily rural states, such as in Indiana or Kentucky, show that the landscape of injection drug use in America is rapidly changing. We have a chance right now to get ahead of the curve and avert a nationwide resurgence of HIV and hepatitis C infections through injection drug use.

Read More: <http://edition.cnn.com/2015/04/17/opinions/frost-congress-rethink-syringe-issue/index.html>





## KY AVHPC Attends 3rd Annual Meeting of the National Hepatitis Corrections Network

On March 18th, 2015, the KY Adult Viral Hepatitis Prevention Coordinator (KY-AVHPC) and 55 colleagues gathered at the Hyatt Boston Harbor to attend the 3rd Annual Meeting of the National Hepatitis Corrections Network (NHCN). You can review a summary of this meeting and power point presentations at:

<http://www.hcvinprison.org/images/stories/NHCN.Summary.2015.pdf>

<http://www.hcvinprison.org/resources/71-main-content/content/189-powerpoints>

The goal for the 3rd annual meeting was to “discuss innovative solutions to common challenges of hepatitis prevention, testing, treatment, and linkage to care in the correctional setting through networking and interaction.”

Attendees came from 21 states, plus the District of Columbia and Puerto Rico. Represented were correctional medical directors, correctional healthcare providers, legal and policy experts, correctional health education experts, academic researchers, departments of health, and community-based organizations.

The group purposefully engages a multidisciplinary group of colleagues with the intention that the conversations and networking that take place during this annual meeting help us develop our understanding of hepatitis C (HCV) care in corrections nationwide. The recent news about HCV is a result of treatment advancements and work being done by advocates for hepatitis C and public health - and we will continue to emphasize the vital role of corrections in those efforts.

Hep C and Prisons in the News: <http://www.hcvinprison.org/hepcnews>

## Current Treatment Guidelines for Chronic Hepatitis B and Their Applications

**Background/Aim:** Treatment practices for patients with chronic hepatitis B (CHB) varies across the world and several professional associations have issued treatment recommendations. This synopsis aims to review the major principles of CHB and its management, and to systematically summarize and compare the recommendations of the major treatment guidelines by: the Asian-Pacific Association for the Study of the Liver, the US Panel, and the European Association for the Study of the Liver, and the American Association for the Study of the Liver.

**Methods:** Treatment recommendations were summarized separately for hepatitis B e antigen (HBeAg)-positive and HBeAg-negative patients.

**Conclusions:** Treatment for CHB is recommended on the basis of a variety of host and viral factors, and the ultimate goal of treatment is the prevention of decompensated liver disease, hepatocellular carcinoma, cirrhosis, and premature death. Despite updates and improvements in these guidelines during the past decade, greater patient and physician education as well as better noninvasive markers to identify high-risk patients are still needed. Significant improvements in the application of current

practice guidelines, however, can be made by relatively simple educational efforts, and new molecular and genomic techniques may hold promise for more accurate selection of high-risk patients for further therapeutic interventions in a near future., J Clin Gastroenterol 2014;48:773–783

## **Louisville Metro Council approves needle exchange**

Louisville became the first municipal government in Kentucky to approve establishment of a local needle exchange on Thursday after a measure to create the program breezed through Metro Council by a 22-0 vote.

The ordinance empowers metro health officials to operate and oversee a substance-abuse treatment outreach program that will allow participants to exchange their hypodermic needles and syringes for clean ones. Democrats and Republicans on the council largely agreed on the need for the program to combat the city's heroin epidemic.

"People on the council see a critical need and are getting beyond the partisanship and initial reactions to the term 'needle exchange' and are going to do the right thing," said Councilman Bill Hollander, D-9th District.

Council members had peppered local health authorities with questions about the lack of specifics, such as where the facility would be located, how many medical professionals will be needed, and whether it will be one-for-one needle replacement.

Those concerns were dwarfed, however, by growing public health concerns.

"There's an acknowledgment that it is a significant issue in our community, and I think because other communities have already done this we're not inventing something," said Councilwoman Angela Leet, R-7th. "It's an indication we're looking out for the safety of all of our citizens."

GOP lawmakers did push for an amendment to the bill requiring that health officials report back to the council before implementation, which was adopted by a voice vote.

"We would like them to come back, to know the details of how they plan to execute this," said Leet.

Read More: <http://www.courier-journal.com/story/news/politics/metro-government/2015/04/23/louisville-metro-council-vote-needle-exchange/26234243/>

Kentucky Department for Public Health, in concert with State and National experts, is developing guidelines for local health departments which will be available in the coming weeks."



## 24 New HIV Cases Reported in Indiana Outbreak, 130 Total

INDIANAPOLIS — Apr 17, 2015,

***“5,322 clean syringes have been provided to 86 participants, health officials said as of April 17<sup>th</sup>. About 1,400 used syringes have been returned.”***

An Indiana county at the heart of an HIV outbreak has seen a "significant increase" in the number of cases more than two weeks into a short-term needle exchange program approved by Gov. Mike Pence, state health officials said Friday.

The Indiana State Department of Health said there are now 120 confirmed HIV cases and 10 preliminary positive cases tied to Scott County, about 30 miles north of Louisville, Kentucky. That's up from 106 last week.

Health officials who declared an epidemic last month have said they expect the number of cases to rise as more people are tested. But the growing number could put pressure on Pence to extend the 30-day needle exchange program that he approved March 26.

Spokeswoman Kara Brooks said Friday that Pence is reviewing reports and recommendations from health officials and will make a decision early next week about extending the program beyond April 25.

The Scott County outbreak has occurred among intravenous drug users and primarily involves the use of the high-powered painkiller Opana, health officials have said. The county typically sees about five HIV cases each year.

Since Pence approved the temporary needle exchange, 5,322 clean syringes have been provided to 86 participants, health officials said Friday. About 1,400 used syringes have been returned.

Read More: <http://abcnews.go.com/Health/wireStory/24-hiv-cases-reported-indiana-outbreak-130-total-30387701>



## Hepatitis Treatments and Counseling Manual:

The most anticipated manual for Hep C Counseling and Testing – **A Guide to Comprehensive Hepatitis C Counseling and Testing** has now been posted under the Hepatitis C Information for Health Professionals section of the CDC Hepatitis Website (<http://www.cdc.gov/hepatitis/HCV/ProfResourcesC.htm>.)

There are two different documents/versions available:

**Manual for use in public health settings:** The purpose of this manual is to provide guidance for counseling and testing of individuals who are at risk for or potentially infected with the hepatitis C virus (HCV). The manual was used in draft form as part of a field assessment among hepatitis C counselors and testers, who field tested the manual and provided recommendations for improving its utility. The field assessment was conducted under contract with Battelle Memorial Institute.

<http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/CounselingandTesting.pdf>

**Manual for its use in primary care practices:** The purpose of this CDC Hepatitis C Counseling and Testing manual is to provide guidance for hepatitis C counseling and testing of individuals born during 1945–1965. The guide was used in draft form as part of a field assessment conducted among primary care providers, who field tested the manual and provided recommendations for improving its utility.

<http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/CounselingandTestingPC.pdf>

The field assessment was conducted under contract with the Battelle Memorial Institute and the American Academy of Family Physicians National Research Network. Please keep in mind: These manuals are intended for guidance only and may be updated and revised at any time.

## EASL 2015: Sofosbuvir/ Ledipasvir + Ribavirin Cures Most Hepatitis C Patients with Advanced Liver Disease

An oral regimen of sofosbuvir/ledipasvir (Harvoni) and ribavirin taken for 12 or 24 weeks produced sustained virological response rates of 85%-88% for genotype 1 hepatitis C patients with decompensated cirrhosis and 95%-98% for liver transplant recipients with less advanced liver damage, according to preliminary results from the SOLAR-2 study presented at the European Association for the Study of the Liver (EASL) 50th International Liver Congress taking place this week in Vienna.

Direct-acting antiviral agents used in interferon-free regimens have revolutionized hepatitis C treatment, curing most patients including those traditionally considered difficult to treat. But challenges remain for people with advanced liver disease, including those with decompensated cirrhosis (when the liver can no longer carry out its vital functions) and patients who are awaiting or have received liver transplants.

Michael Mann's from Hannover Medical School in Germany and fellow investigators with the SOLAR-2 trial (GS-US-337-0124) evaluated the safety and efficacy of the nucleotide HCV polymerase inhibitor sofosbuvir and NS5A inhibitor ledipasvir, taken as a once-daily fixed-dose coformulation, plus daily ribavirin for people with advanced liver disease.

This Phase 2 study enrolled more than 300 chronic hepatitis C patients in Europe, Canada, Australia, and New Zealand. Three-quarters were men, more than 90% were white, and the median age was nearly 60 years. Most had HCV genotype 1 (about half with 1a and 40% with 1b), while about 10% had genotype 4. About 80% had received prior treatment without being cured.

Read More: <http://www.hivandhepatitis.com/hepatitis-c/hepatitis-c-topics/hcv-treatment/5170-easl-2015-sofosbuvirledipasvir-ribavirin-cures-most-hepatitis-c-patients-with-advanced-liver-disease>

## **Webinar: Hepatitis C and African American Women**

**May 7, 2015 / 1:30 – 2:45 p.m. ET**



In preparation for National Women's Health Week, the Office on Women's Health, Office of Minority Health, and Office of HIV/AIDS and Infectious Disease Policy are co-sponsoring a webinar on hepatitis C and African American women.

Register at: <https://attendee.gotowebinar.com/register/8242348545968221442>

- Key hepatitis C data including the health disparities among African Americans,
- Recent hepatitis C treatment advances,
- Why African American women should know about hepatitis C, and
- Resources available to help increase awareness and learn more about hepatitis C.

Webinar presenters will also discuss how women may be affected by hepatitis C, challenges, and strategies to improve testing and access to care, and what steps individuals and health care providers can take to address hepatitis C in the African American community.



## Webinar Announcement:

### Local Health Departments and Hepatitis C

Wednesday, May 6

2:00-3:30 PM EDT

[Register now](#)

This will be the first webinar of the National Association of County and City Health Officials' (NACCHO's) Local Health Departments and Hepatitis C educational series. The webinar will begin with an overview of the first module in the series, "Hepatitis C Virus: An Overview and Introduction to the Role of Local Health Departments," followed by an interactive question and answer session with the speakers. A key focus of this webinar is to answer questions and provide an opportunity for participants to engage with colleagues and partners across the country.

#### Speakers:

- John Ward, Director, Division of Viral Hepatitis, CDC (*Invited*)
- Claudia Vellozzi, Chief, Prevention Branch, Division of Viral Hepatitis, CDC
- Corinna Dan, Viral Hepatitis Policy Advisor, Office of HIV/AIDS and Infectious Disease Policy, HHS
- Alexandra Shirreffs, Viral Hepatitis Prevention Coordinator, Philadelphia Department of Public Health
- Alyssa Kitlas, Program Analyst, NACCHO (moderator)

The webinar will focus on topics covered in the first module of NACCHO's educational series, which will be released on Friday, May 1. Topics include: the epidemiology of hepatitis C virus (HCV), advances in HCV treatment, the National Viral Hepatitis Action Plan, CDC's testing recommendations for persons born between 1945 and 1965, and an example from the Philadelphia Department of Public Health about how they are leveraging partnerships to address HCV. Visit [www.naccho.org/viralhepatitis](http://www.naccho.org/viralhepatitis) to learn more.

Come prepared to ask questions! Questions can also be submitted in advance of the webinar by e-mailing Alyssa Kitlas at [akitlas@naccho.org](mailto:akitlas@naccho.org). [Register now](#)



## Registration Now Open:

### HCV Advocate Training

June 11<sup>th</sup>: Florence Government Center

June 12<sup>th</sup>: Lake Cumberland District Health Department

### Register on TRAIN

### HCV Training Workshop # 1056287

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Topics include: HCV Diagnostic Test, HCV Transmission & Prevention, HCV Symptoms, Disease Progression & Management, and Medical Treatments for HCV including upcoming new therapies!

For additional information contact [KathyJ.Sanders@ky.gov](mailto:KathyJ.Sanders@ky.gov)

**Registration Now Open!**

**July 28, 2015**

**The 2015 Kentucky Conference on  
Viral Hepatitis**

**Hepatitis: Preventing  
The Silent Epidemic in Kentucky**

**Embassy Suites in  
Lexington, Kentucky**

**July 28, 2015**

This conference aims to educate attendees on  
prevention, diagnosis, and treatment of those  
affected by hepatitis B and hepatitis C.

Breakfast, snacks and lunch provided

**FREE- CEU and CME Credits Will be Available**

Registration: <https://ky.train.org/DesktopShell.aspx>

Course ID: #1056815

Hotel information: <https://aws.passkey.com/event/13886834/owner/11575814/home>

For more Information, email Kathy Sanders ([KathyJ.Sanders@ky.gov](mailto:KathyJ.Sanders@ky.gov)) or  
Julie Miracle ([Julie.Miracle@ky.gov](mailto:Julie.Miracle@ky.gov)) or call (502) 564-4478

# REMINDER: HEPATITIS C Reporting:

## Hepatitis C: Perinatal and Children Aged Five Years or Less

Health care providers should report, <http://www.lrc.ky.gov/kar/902/002/020.htm>

- all HCV-positive pregnant women;
- all infants born to HCV-positive women; and
- all HCV-positive infants and children 5 years old and younger seen in birthing hospitals, medical practices and clinics

Remember: Routine testing for HCV is not recommended for all pregnant women. Pregnant women with a known risk factor for HCV infection should be offered counseling and testing. Data from the CDC states that approximately 6 out of every 100 infants born to HCV infected woman become infected. The risk is greater, 2 to 3 times, if the woman is co-infected with HIV. There is currently no HCV treatment approved for pregnant women.

<http://www.cdc.gov/std/treatment/2010/hepc.htm>

## Infant born to mothers with HCV

Infants born to HCV-positive mothers should be tested for HCV infection. Children born to HCV-positive mothers can be tested with the **HCV RNA tests at 2 months of age or older** (at a routine well-child visit) or **HCV antibody testing can be done at 18 months of age** (HCV antibody testing should be delayed until 18 months of age to avoid detecting maternal antibody).

<http://www.cdc.gov/hepatitis/hcv/hcvfaq.htm>

Thank you for your ongoing assistance to report pregnant women and children aged five years and less who are infected with hepatitis C virus (HCV), seen in birthing hospitals, medical practices, and clinics throughout the Commonwealth.

Complete and fax the reporting form at the end of this newsletter.

## Fax forms to 502-696-3803





## Viral Hepatitis Prevention Program Staff:

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## Community Outbreak of HIV Infection Linked to Injection Drug Use of Oxymorphone — Indiana, 2015

Caitlin Conrad<sup>1</sup>, Heather M. Bradley<sup>2</sup>, Dita Broz<sup>2</sup>, Swamy Buddha<sup>1</sup>, Erika L. Chapman<sup>1</sup>, Romeo R. Galang<sup>2,3</sup>, Daniel Hillman<sup>1</sup>, John Hon<sup>1</sup>, Karen W. Hoover<sup>2</sup>, Monita R. Patel<sup>2,3</sup>, Andrea Perez<sup>1</sup>, Philip J. Peters<sup>2</sup>, Pam Pontones<sup>1</sup>, Jeremy C. Roseberry<sup>1</sup>, Michelle Sandoval<sup>2,3</sup>, Jessica Shields<sup>4</sup>, Jennifer Walthall<sup>1</sup>, Dorothy Waterhouse<sup>4</sup>, Paul J. Weidle<sup>2</sup>, Hsiu Wu<sup>2,3</sup>, Joan M. Duwve<sup>1,5</sup> (Author affiliations at end of text)

On January 23, 2015, the Indiana State Department of Health (ISDH) began an ongoing investigation of an outbreak of human immunodeficiency virus (HIV) infection, after Indiana disease intervention specialists reported 11 confirmed HIV cases traced to a rural county in southeastern Indiana. Historically, fewer than five cases of HIV infection have been reported annually in this county. The majority of cases were in residents of the same community and were linked to syringe-sharing partners injecting the prescription opioid oxymorphone (a powerful oral semi-synthetic opioid analgesic). As of April 21, ISDH had diagnosed HIV infection in 135 persons (129 with confirmed HIV infection and six with preliminarily positive results from rapid HIV testing that were pending confirmatory testing) in a community of 4,200 persons (1).

The age range of the 135 patients is 18–57 years (mean = 35 years; median = 32 years); 74 (54.8%) are male. A small number of pregnant women were diagnosed with HIV infection and started on antiretroviral therapy during pregnancy. As of April 21, no infants had tested positive for HIV. Of the 135 persons with diagnosed HIV infection, 108 (80.0%) have reported injection drug use (IDU), four (3.0%) have reported no IDU, and 23 (17.0%) have not been interviewed to determine IDU status. Among the 108 who have reported IDU, all reported dissolving and injecting tablets of oxymorphone as their drug of choice. Some reported injecting other drugs, including methamphetamine and heroin. Ten (7.4%) female patients have been identified as commercial sex workers. Coinfection with hepatitis C virus has been diagnosed in 114 (84.4%) patients.

The patients were interviewed about syringe-sharing and sex partners, as well as any social contacts who also might have engaged in high risk behaviors. Those interviewed reported an average of nine syringe-sharing partners, sex partners, or other

social contacts who might be at risk for HIV infection. Of the 373 contacts named as of April 21, a total of 247 (66.2%) had been located, 230 (61.7%) were tested, and 17 (4.6%) either declined testing or were not able to be tested. Of the 230 contacts who were tested, test results for 109 (47.4%) were HIV positive, and 121 (52.6%) were HIV negative. Of the 128 contacts who have not yet been located, 74 (57.8%) have been identified as syringe-sharing or sex partners, and 54 (42.2%) are social contacts regarded as at high risk for HIV infection.

Injection drug use in this community is a multi-generational activity, with as many as three generations of a family and multiple community members injecting together. IDU practices include crushing and cooking extended-release oxymorphone, most frequently 40 mg tablets not designed to resist crushing or dissolving. Syringes and drug preparation equipment are frequently shared (e.g., the drug is dissolved in nonsterile water and drawn up into an insulin syringe that is usually shared with others). The reported daily numbers of injections ranged from four to 15, with the reported number of injection partners ranging from one to six per injection event.

Like many other rural counties in the United States, the county has substantial unemployment (8.9%), a high proportion of adults who have not completed high school (21.3%), a substantial proportion of the population living in poverty (19%), and limited access to health care (1). This county consistently ranks among the lowest in the state for health indicators and life expectancy (2).

ISDH worked with the only health care provider in the immediate community, local health officials, law enforcement, community partners, regional health care providers and CDC to launch a comprehensive response to this outbreak. A public health emergency was declared on March 26 by executive order (3). The response has included a public education campaign,



establishment of an incident command center and a community outreach center, short-term authorization of syringe exchange, and support for comprehensive medical care including HIV and hepatitis C virus care and treatment as well as substance abuse counseling and treatment. State and local health departments and academic partners, with the assistance of CDC, are working to implement and improve the community outreach programs supported by the executive order and to interrupt IDU-related HIV and hepatitis C virus transmission. Contact tracing by state and CDC disease intervention specialists continues to identify those potentially exposed.

This HIV outbreak involves a rural population, historically at low risk for HIV, in which HIV infection spread rapidly within a large network of persons who injected prescription opioids. The Indiana public health response includes implementing programs to contain the spread of HIV and hepatitis C virus, curb injection drug use, and concurrently build social resilience in the community. The outbreak highlights the vulnerability of many rural, resource-poor populations to drug use, misuse, and addiction, in the context of a high prevalence of unaddressed comorbid conditions (4). The outbreak also demonstrates the importance of timely HIV and Hepatitis C surveillance activities and rapid response to interrupt disease transmission.

Finally, the outbreak points to the need for expanded mental health and substance use treatment programs in medically underserved rural areas (5).

<sup>1</sup>Indiana State Department of Health; <sup>2</sup>Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC; <sup>3</sup>Epidemic Intelligence Service, CDC; <sup>4</sup>Clark County Health Department, Jeffersonville, Indiana; <sup>5</sup>Indiana University Richard M. Fairbanks School of Public Health, Indianapolis, Indiana (Corresponding author: Joan M. Duwve, jduwve@iu.edu, 317-278-0754)

## References

1. US Census Bureau. State and county quickfacts: Indiana. Available at <http://quickfacts.census.gov/qfd/states/18000.html>.
2. University of Wisconsin Population Health Institute. County health rankings and roadmaps. Available at <http://www.countyhealthrankings.org/>.
3. State of Indiana. Executive order 15–05. Available at <http://www.in.gov/gov/2384.htm>.
4. Substance Abuse and Mental Health Services Administration. Results from the 2013 national survey on drug use and health: summary of national findings. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration; 2014. Available at <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFHTML2013/Web/NSDUHresults2013.pdf>.
5. Lenardson JD, Gale JA. Research and policy brief. Distribution of substance abuse treatment facilities across the rural-urban continuum. Portland, ME: Maine Rural Health Research Center; 2008. Available at <http://muskie.usm.maine.edu/Publications/rural/pb35bSubstAbuseTreatmentFacilities.pdf>.

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# Kentucky Reportable Disease Form

Department for Public Health  
Division of Epidemiology and Health Planning  
275 East Main St., Mailstop HS2E-A  
Frankfort, KY 40621-0001

## Hepatitis Infection in Pregnant Women or Child (under the age of five)

Fax Form to 502-696-3803

DEMOGRAPHIC DATA					
Patient's Last Name		First	M.I.	Date of Birth	Age
					Gender <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> Unk
Address		City	State	Zip	County of Residence
Phone Number	Patient ID Number	Ethnic Origin <input type="checkbox"/> His. <input type="checkbox"/> Non-His.		Race <input type="checkbox"/> W <input type="checkbox"/> B <input type="checkbox"/> A/PI <input type="checkbox"/> Am.Ind. <input type="checkbox"/> Other	
DISEASE INFORMATION					
Describe Clinical Symptoms:		Date of Onset: / /	Jaundice: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Diagnosis: / /	
Is Patient Pregnant? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, # wks _____		Expected Date of Delivery: / /	Name of Hospital for Delivery:		
Physician Provider Name: Address: Phone:					
LABORATORY INFORMATION					
Hepatitis Markers	Results	Date of test	Viral Load *if applicable	Name of Laboratory	
HBsAg	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /			
IgM anti-HBc	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /			
HBeAg	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /			
IgM anti-HAV	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /			
HCV Antibody	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /			
HCV RNA Confirmation	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /			
SERUM AMINOTRANSFERASE LEVELS					
Patient	Reference	Date of test	Name of Laboratory		
AST (SGOT) U/L	U/L	/ /			
ALT (SGPT) U/L	U/L	/ /			
Mother: Hepatitis Risk Factors <input type="checkbox"/> IDU <input type="checkbox"/> Multiple Sexual Partners <input type="checkbox"/> Tattoos <input type="checkbox"/> STD <input type="checkbox"/> HIV <input type="checkbox"/> Foreign Born/ Country _____ <input type="checkbox"/> Exposure to known HBV/HCV Pos contact			Child: Hepatitis Risk Factors <input type="checkbox"/> Mother HBV Pos <input type="checkbox"/> Household member exposure HBV Pos <input type="checkbox"/> Mother HCV Pos <input type="checkbox"/> Household member exposure HCV Pos <input type="checkbox"/> Foreign Born / Country _____		
Mother: Hepatitis A vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Dates Given: / / Hepatitis B Vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused If yes, how many doses <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 Year completed: / / Child: Hepatitis A vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Dates Given: / / Hepatitis B Vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Dates Given: / / Was PEP Infant of Positive HBV mother given at birth? <input type="checkbox"/> Yes <input type="checkbox"/> No					

# HEPATITIS C & INJECTION DRUG USE

## What is Hepatitis C?

Hepatitis C is a serious liver disease caused by the Hepatitis C virus. About 80% of people who get infected develop a chronic, or lifelong, infection. Over time, chronic Hepatitis C can cause serious health problems including liver damage, liver failure, and even liver cancer. However, some people get only a short term, or acute, infection and are able to clear the virus without treatment. If someone clears the virus, this usually happens within 6 months after first infected.

## What are the symptoms?

Symptoms of Hepatitis C can include: fever, feeling tired, not wanting to eat, upset stomach, throwing up, dark urine, grey-colored stool, joint pain, and yellow skin and eyes. However, many people who get Hepatitis C do not have symptoms and do not know they are infected. If symptoms occur with acute infection, they can appear anytime from 2 weeks to 6 months after infection. Symptoms of chronic Hepatitis C can take decades to develop, and when symptoms do appear, they often are a sign of advanced liver disease.

## Should I get tested?

Yes. If you have ever injected drugs, you should get tested for Hepatitis C. If you are currently injecting, talk to your doctor about how often you should be tested.

The Hepatitis C Antibody Test is a blood test that looks for antibodies to the Hepatitis C virus. A reactive or positive Hepatitis C Antibody Test means that a person has been infected at some point in time. Unlike HIV, a reactive antibody test **does not** necessarily mean a person still has Hepatitis C. An additional blood test called a RNA test is needed to determine if a person is currently infected with Hepatitis C.



All equipment used to prepare and inject drugs can spread Hepatitis C when contaminated and shared.

## How is Hepatitis C spread among people who inject drugs?

The Hepatitis C virus is very infectious and can easily spread when a person comes into contact with surfaces, equipment, or objects that are contaminated with infected blood, even in amounts too small to see. The virus can survive on equipment and surfaces for up to 3 weeks. People who inject drugs can get Hepatitis C from:

- **Needles & Syringes.** Sharing or reusing needles and syringes increases the chance of spreading the Hepatitis C virus. Syringes with detachable needles increase this risk even more because they can retain more blood after they are used than syringes with fixed-needles.
- **Preparation Equipment.** Any equipment, such as cookers, cottons, water, ties, and alcohol swabs, can easily become contaminated during the drug preparation process.
- **Fingers.** Fingers that come into contact with infected blood can spread Hepatitis C. Blood on fingers and hands can contaminate the injection site, cottons, cookers, ties, and swabs.
- **Surfaces.** Hepatitis C can spread when blood from an infected person contaminates a surface and then that surfaced is reused by another person.

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## Are there other ways Hepatitis C can spread?

Hepatitis C can also spread when tattoo, piercing, or cutting equipment is contaminated with the Hepatitis C virus and used on another person. Although rare, Hepatitis C can be spread through sex. Hepatitis C seems to be more easily spread through sex when a person has HIV or an STD. People who have rough sex or numerous sex partners are at higher risk of getting Hepatitis C.

## Can Hepatitis C be prevented?

Yes. The best way to prevent Hepatitis C is to stop injecting. Drug treatment, including methadone or buprenorphine, can lower your risk for Hepatitis C since there will no longer be a need to inject.

However, if you are unable or unwilling to stop injecting drugs, there are steps you can take to reduce the risk of becoming infected.

- **Always** use sterile needles, syringes *and* preparation equipment—cookers, cottons, water, ties, and alcohol swabs—for each injection.
- Set up a clean surface **before** placing down your injection equipment.
- **Do not** divide and share drug solution with equipment that has already been used.
- Avoid using syringes with detachable needles to reduce the amount of blood remaining in the syringe after injecting.
- Thoroughly wash hands with soap and water **before and after** injecting to remove blood or germs.
- Clean injection site with alcohol or soap-and-water **prior** to injecting.
- **Do not** inject another person.
- Apply pressure to injection site with a sterile pad to stop any bleeding after injecting.
- Only handle your own injection equipment. If you do inject with other people, separate your equipment from others to avoid accidental sharing.

## Cleaning equipment does not kill the Hepatitis C virus.

Bleaching, boiling, burning, or using common cleaning fluids, alcohol, or peroxide will **not** kill the Hepatitis C virus. The Hepatitis C virus is difficult to kill. So although cleaning equipment may reduce the amount of virus, it does not eliminate it.

## Can Hepatitis C be treated?

Yes. New and improved treatments are available that can cure Hepatitis C for most people. Most of the new treatments are taken as pills and do not require interferon injections. However, treatment for Hepatitis C depends on many different factors, so it is important to talk to a doctor about options.

## Can someone get re-infected with Hepatitis C?

Yes. Someone who clears the virus, either on their own or from successful treatment, can become infected again.



People who inject drugs should get vaccinated for Hepatitis A and B.

## Does injecting put you at risk for other types of hepatitis?

Yes. People who inject are more likely to get Hepatitis A and Hepatitis B. Getting vaccinated for Hepatitis A and B will prevent these types of hepatitis. There is currently no vaccine for Hepatitis C.

## For More Information

Talk to your health professional, call your health department, or visit [www.cdc.gov/hepatitis](http://www.cdc.gov/hepatitis).